

Title (en)

FIN RAY-TYPE WIPER COMPRISING A FLEXIBLE STRUCTURE OPTIMIZED FOR DEMOLDING

Title (de)

FINRAY-WISCHER MIT ENTFORMOPTIMIERTER FLEXOSTRUKTUR

Title (fr)

ESSUIE-GLACE FINRAY PRÉSENTANT UNE FLEXOSTRUCTURE À DÉFORMATION OPTIMISÉE

Publication

**EP 3218234 B1 20181024 (DE)**

Application

**EP 15790972 A 20151109**

Priority

- DE 102014222971 A 20141111
- EP 2015076004 W 20151109

Abstract (en)

[origin: WO2016075057A1] The invention relates to a windshield wiper device for a vehicle, for wiping a window (4), comprising a wiper blade (2) that has an elongate upper part (10) and an elongate lower part (12) which are at least partly flexible. Also provided is a plurality of connecting elements (18) for connecting the upper part (10) and the lower part (12), the connecting elements (18) being spaced apart along a longitudinal direction (8) of the wiper blade (2) and being attached to the upper part (10) and/or the lower part (12) by a rotary joint (20), and the connecting elements (18) being designed to allow a motion of the upper part (10) and the lower part relative to each other with a motion component along the longitudinal direction (8) of the wiper blade (2). Each connecting element (18) extends along a longitudinal axis (24) of the connecting element (18) and along a transverse axis (25) running perpendicular to the longitudinal axis (24), which runs from the upper part (10) to the lower part (12). The transverse axes (25) of at least two connecting elements (18) adjoining each other along the longitudinal direction (8) define a demolding angle ( $\beta$ ) of at least  $0.5^\circ$  relative to one another.

IPC 8 full level

**B60S 1/38** (2006.01); **B29C 45/26** (2006.01); **B60S 1/34** (2006.01)

CPC (source: CN EP US)

**B29C 45/33** (2013.01 - EP US); **B60S 1/38** (2013.01 - US); **B60S 1/3801** (2013.01 - CN EP US); **B29C 45/33** (2013.01 - CN); **B29L 2031/305** (2013.01 - CN EP US); **B60S 1/3427** (2013.01 - CN EP US); **B60S 2001/3812** (2013.01 - CN EP US); **B60S 2001/3825** (2013.01 - CN EP US); **B60S 2001/3898** (2013.01 - CN EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**DE 102014222971 A1 20160512**; CN 107107874 A 20170829; CN 107107874 B 20190409; EP 3218234 A1 20170920; EP 3218234 B1 20181024; US 10421438 B2 20190924; US 2017320468 A1 20171109; WO 2016075057 A1 20160519

DOCDB simple family (application)

**DE 102014222971 A 20141111**; CN 201580061152 A 20151109; EP 15790972 A 20151109; EP 2015076004 W 20151109; US 201515525394 A 20151109